



## AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A semiconductor optical integrated device, comprising: a light-generating region for generating light with a predetermined wavelength; and a light-modulating region having a first facet for outputting light generated in said light-generating region and modulated in said light-modulating region, wherein said first facet provides a coating including a first layer in physical contact with said light-modulating region and a second layer in physical contact with said first layer and not in physical contact with said first facet, said first layer having a first refractive index and said second layer having a second refractive index greater than said first refractive index, said second layer being made of material selected from a group of titanium oxide and tantalum oxide, and wherein said coating shows an anti-reflection characteristic at said predetermined wavelength.

2. (Previously Presented) The semiconductor optical integrated device according to claim 1, wherein said first layer is made of material selected from a group of silicon nitride, silicon oxide, silicon oxi-nitride and aluminum oxide.

Claims 3 and 4. (Cancelled).

5. (Original) The semiconductor optical integrated device according to claim 1, wherein said light-generating region and said light-modulating region further comprise an InP substrate, an n-type InP layer provided on said InP substrate, an active layer provided on said n-type InP layer, and a p-type InP layer provided on said active layer.

6. (Currently Amended) A semiconductor optical device, comprising:  
a light-generating region for generating light with a predetermined wavelength;  
a first facet; and  
a second facet, said first facet and said second facet sandwiching said light-generating region therebetween,

wherein said first facet provides a coating including a first layer in physical contact with said light-generating region and a second layer in physical contact with said first layer and not in physical contact with said first facet, said first layer having a first refractive index and said second layer having a second refractive index greater than said first refractive index, said second layer being made of material selected from a group of titanium oxide and tantalum oxide, and

wherein said coating shows an anti-reflection characteristic at said predetermined wavelength.

7. (Previously Presented) The semiconductor optical device according to claim 6, wherein said first layer is made of material selected from a group of silicon nitride, silicon oxide, silicon oxi-nitride and aluminum oxide.

Claims 8 and 9. (Cancelled).

10. (Original) The semiconductor optical device according to claim 6,

wherein said light-generating region further comprise an InP substrate, an n-type InP layer provided on said InP substrate, an active layer provided on said re-type InP layer, and a p-type InP layer provided on said active layer.